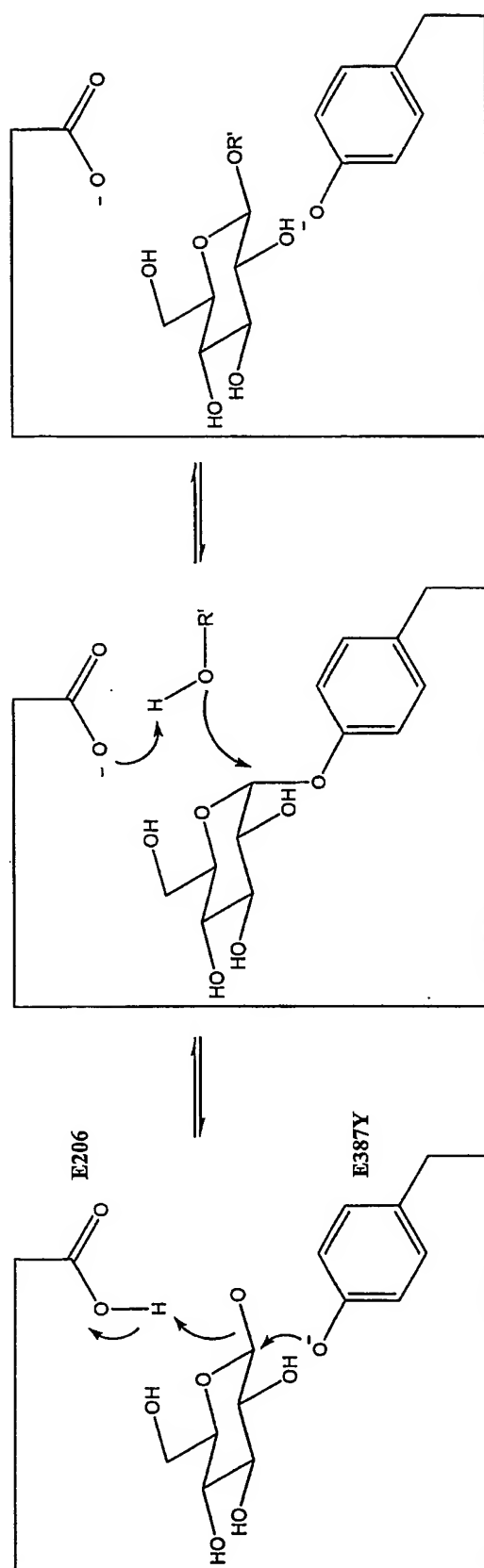


Figure 1

Figure 2

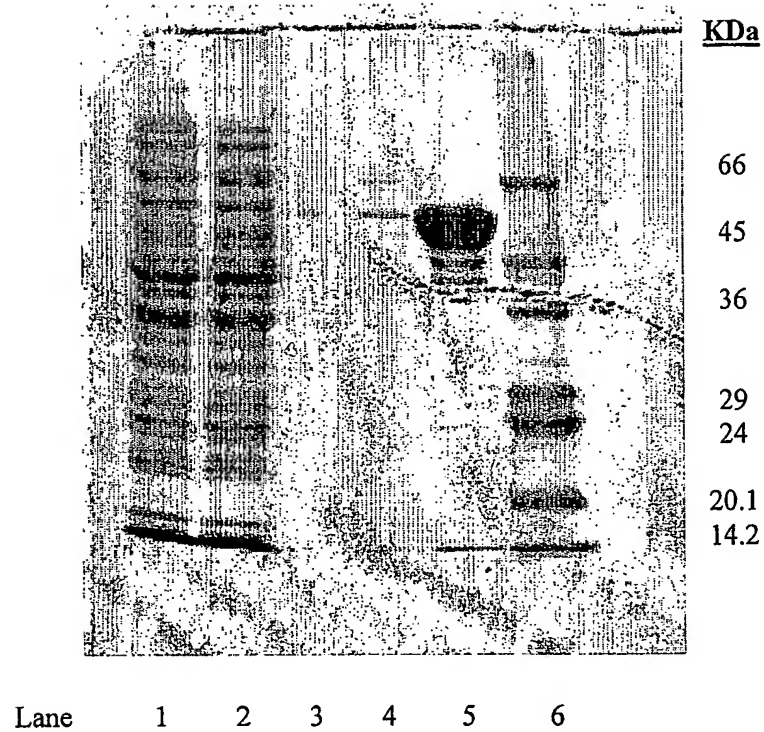


Figure 3

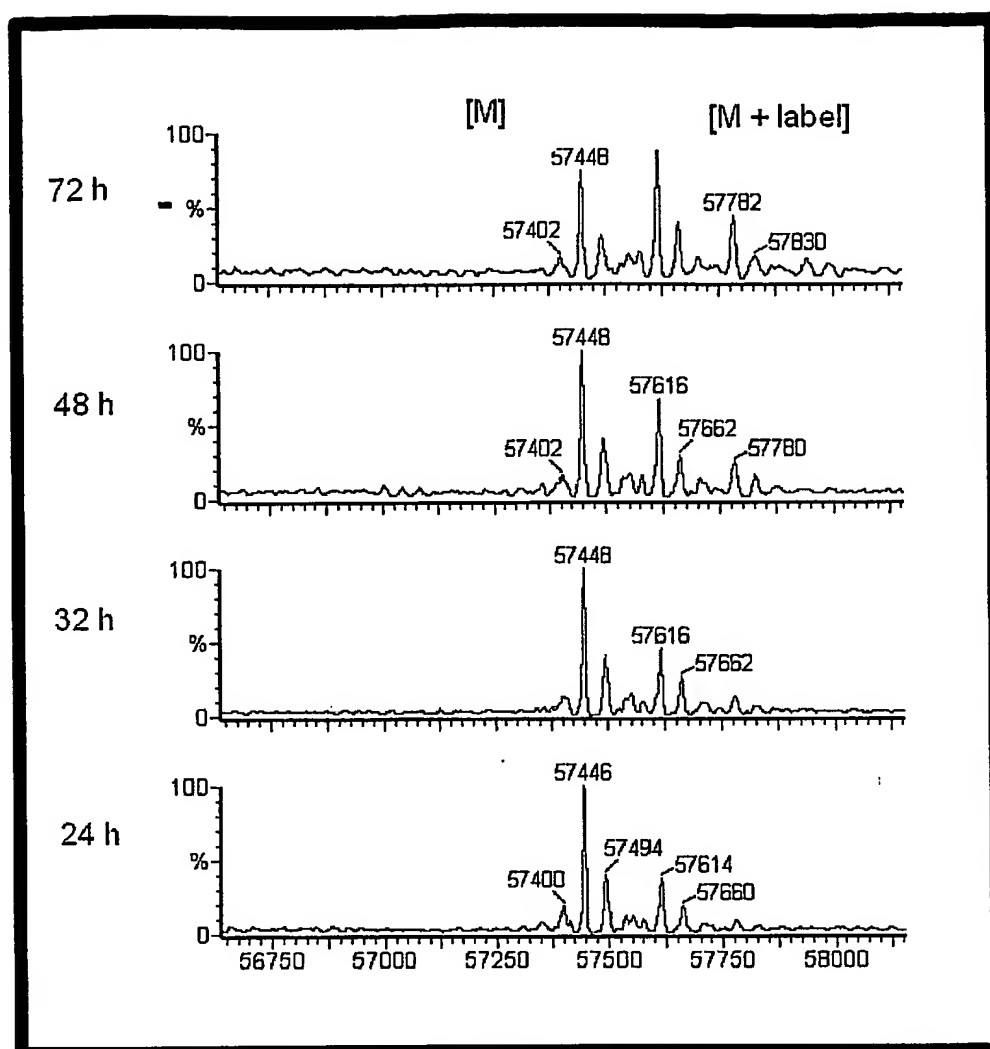


Figure 4

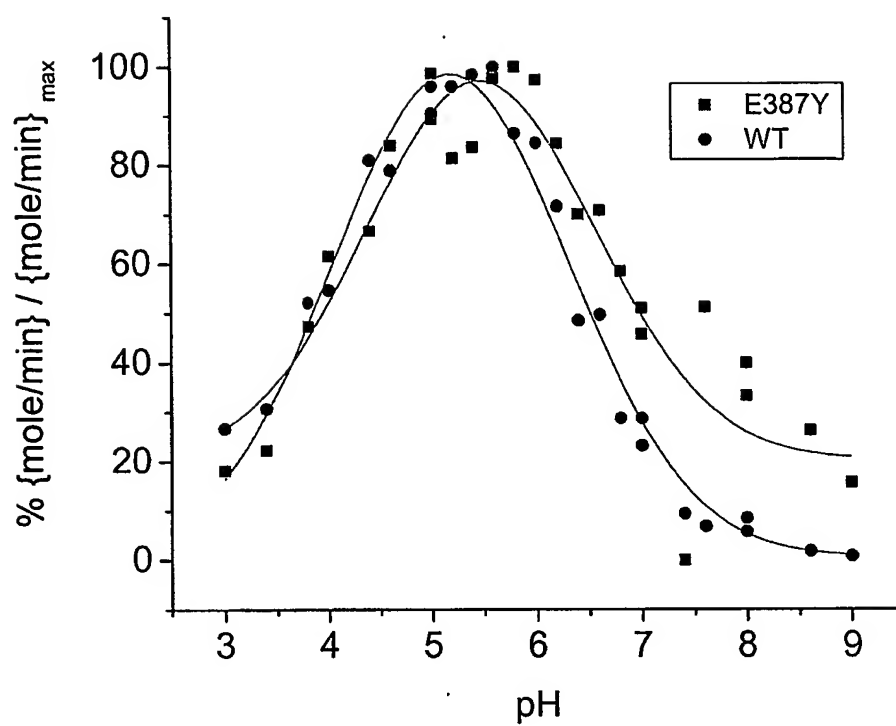
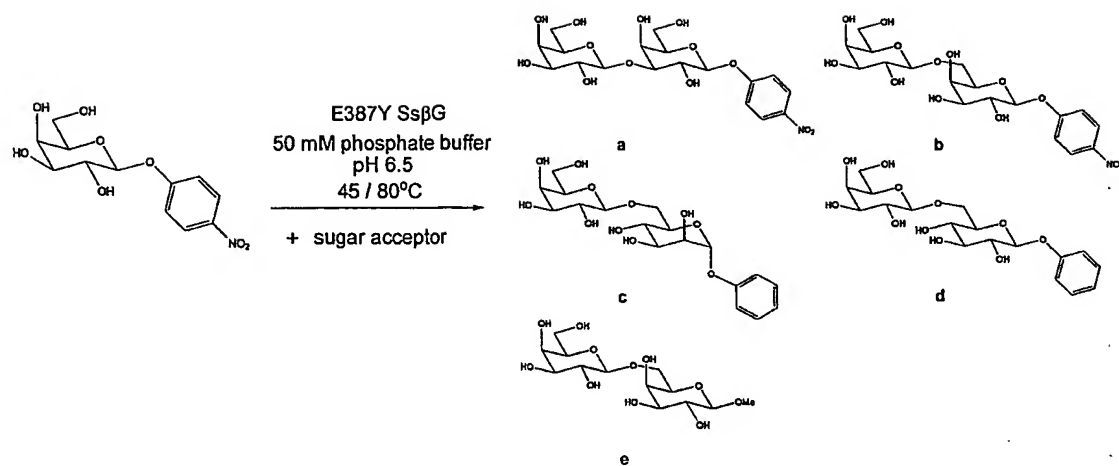
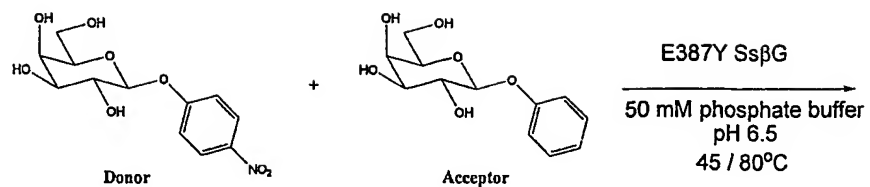


Figure 5



| acceptor | time / h | temp. / °C | yield ^[c] / % | | | | | | | | S/H ^[d] | conv. ^[c] / % |
|------------|-------------|---------------|--------------------------|----|----|----|---|------------------|------------------|-------|--------------------|-----------------------------|
| | | | a | b | c | d | e | H ^[d] | S ^[d] | total | | |
| MeβGal | 105 | 45 | 18 | 24 | - | - | 2 | 37 | 44 | 81 | 1.2 | 92 |
| MeβGal | 15 | 80 | 51 | 36 | - | - | 1 | 0 | 88 | 88 | ∞ | 78 |
| cellobiose | 250 | 45 | 14 | 15 | - | - | - | 44 | 29 | 73 | 0.7 | 100 |
| cellobiose | 15 | 80 | 22 | 27 | - | - | - | 6 | 49 | 55 | 8.2 | 79 |
| lactose | 105 | 45 | 21 | 29 | - | - | - | 33 | 50 | 75 | 2.0 | 80 |
| lactose | 15 | 80 | 30 | 54 | - | - | - | 16 | 84 | 100 | 5.3 | 91 |
| MeβMan | 105 | 45 | 16 | 38 | - | - | - | 46 | 54 | 100 | 1.2 | 100 |
| MeβMan | 15 | 80 | 39 | 46 | - | - | - | 15 | 85 | 100 | 5.7 | 92 |
| PhβGlc | 180 | 45 | 9 | 46 | - | 26 | - | 17 | 81 | 98 | 4.8 | 97 |
| PhβGlc | 16 | 80 | 0 | 28 | - | 12 | - | 37 | ?? | ?? | ? | 100 |
| PhαMan | 41 | 45 | 0 | 3 | 12 | - | - | 85 | 15 | 100 | 0.2 | 100 |
| PhαMan | 15 | 80 | 1 | 10 | 25 | - | - | 64 | 36 | 100 | 0.6 | 100 |

Figure 6



| ratio | D | E387Y | time | temp. | yield ^[c] / % | | | | | | | S/H | conv. ^[c] |
|-------|-----|---------------------|------|-------|--------------------------|----|----|--------------------|------------------|------------------|-------|------|----------------------|
| [D:A] | /mM | /mgmL ⁻¹ | /h | /°C | a | b | d | tri ^[c] | H ^[d] | S ^[d] | total | | / % |
| 1:1 | 30 | 1 | 41 | 45 | 17 | 37 | 29 | 11 | 6 | 94 | 100 | 16 | 47 |
| 1:2 | 30 | 1 | 41 | 45 | 18 | 15 | 49 | 6 | 2 | 88 | 100 | 44 | 74 |
| 1:3 | 30 | 1 | 41 | 45 | 5 | 0 | 72 | 23 | <1 | >99 | 100 | 99 | 29 |
| 1:1 | 60 | 1 | 41 | 45 | 10 | 17 | 17 | 3 | <1 | 47 | 48 | 47 | 58 |
| 1:1 | 60 | 2 | 41 | 45 | 6 | 6 | 22 | 0 | 40 | 34 | 74 | 0.85 | 66 |

Figure 7